

### **Communicating Medical Needs to Non-Medical Managers**

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Introduction: Differences in communication styles and languages between groups often lead to miscommunication, confusion, and/or frustration. Engineers, computer specialists, clinicians, and managers often utilize the English language in very different ways, with different groups using the same words to represent different concepts ("complaint" is a typical example). In addition, medical issues are often perceived as "off-nominal" and not "primary mission tasks" by managers, which can cause them to assign lower priorities to medical training time and resources.

Knowledge bases differ due to variations in training and skill sets, and the goals (both immediate and long-term) of the communicators may also vary, with managers being primarily concerned with overall mission objectives, while clinicians focus on individual or group health issues.

Furthermore, true communication is only possible when clinicians possess a deep understanding of mission requirements as well as the ability to communicate medical requirements on a priority basis using risk assessment, added value, and cost benefit analysis. These understandable differences may contribute to difficulties in expressing concerns and ideas in an efficient manner, particularly in projects, such as the space program or many military operations, where these varied groups must collaborate, and where the final decisions must be made by fully informed mission commanders. Methods: Three scenario-based approaches were developed utilizing decision trees and problem based learning, to help define and integrate these concepts. Results: Use of these techniques by NASA and military personnel will be presented. Discussion: To enhance communication, particularly of medical needs, one must identify the concerns and motivating factors for the other groups; for example, members of management may focus on financial concerns, a desire for risk mitigation, public perceptions, mission objectives, etc.

Training clinicians to frame issues in these terms may lead to better understanding of the medical concerns by other groups.